

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DH/12287.35	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/CA 00/ 01150	International filing date (day/month/year) 28/09/2000	(Earliest) Priority Date (day/month/year) 28/09/1999
Applicant INFECTIO DIAGNOSTIC (I.D.I.) INC. et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.
☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☒ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ Certain claims were found unsearchable (See Box I).

3. ☒ Unity of invention is lacking (see Box II).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

HIGHLY CONSERVED GENES AND THEIR USE TO GENERATE PROBES AND PRIMERS FOR DETECTION OF MICROORGANISMS

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 2

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 00/01150

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-44 (all partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

The present application relates to nucleic acids that can be used in the detection of microorganisms, the provision and use of said nucleic acids and products that are derived from the nucleic acids.

In view of the extraordinary amount of combinations of sequences in the claims, which render the regrouping of sequences almost impossible, in view of the large number of sequences claimed, and in view of the wording of the claims presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT) to such an extent that a meaningful search for the claims as they stand is impossible.

Additionally, present claims 1-44 relate to an extremely large number of possible compositions, nucleic acids, and combinations of nucleic acids. Present claims 4, 5, 8-10, 22-31, 33-43 relate to products defined by reference to a desirable characteristic or property, namely being obtainable by a method or being capable of hybridizing to a certain nucleic acid.

The claims cover all products having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the products by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

Notwithstanding the aforementioned, a search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely nucleic acid sequence Seq. ID. No. 543 (see non-unity ISA form 206), methods relating to said sequence, the use of the sequence and the products derived from or defined by the sequence.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-44 (all partially)

Invention 1:

Nucleic acid molecule with Sequence ID No 543, methods for the provision of the nucleic acid, methods using the nucleic acid, use of the nucleic acid, compositions and sets containing the nucleic acid, and products derived from or defined by the nucleic acid.

2. Claims: 1-44 (all partially)

Invention 2-2297:

Nucleic acid molecule with Sequence ID No n, wherein n is chosen among 1-543 and 545-2297, methods for the provision of the nucleic acid, methods using the nucleic acid, use of the nucleic acid, compositions and sets containing the nucleic acid, and products derived from or defined by the nucleic acid.

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International Application No
PCT/CA 00/01150

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68 C07K14/00 C12N15/63 C12N05/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, SEQUENCE SEARCH, EMBL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 24059 A (MASSACHUSETTS INST TECHNOLOGY ;AIRD WILLIAM C (US); EDELBERG JAY M) 20 May 1999 (1999-05-20) page 26, line 12	24
X	WO 98 20157 A (BERGERON MICHEL G ;INFECTIO DIAGNOSTIC INC (CA); PICARD FRANCOIS J) 14 May 1998 (1998-05-14) the whole document	24

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

17 January 2002

Date of mailing of the international search report

12. 04. 2002

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REUTER, U

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 00/01150

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9924059	A	20-05-1999	AU	1454199 A		31-05-1999
			WO	9924059 A1		20-05-1999

WO 9820157	A	14-05-1998	US	5994066 A		30-11-1999
			AU	731850 B2		05-04-2001
			AU	4859897 A		29-05-1998
			BR	9713494 A		29-02-2000
			WO	9820157 A2		14-05-1998
			CN	1248295 A		22-03-2000
			EP	0943009 A2		22-09-1999
			JP	2001504330 T		03-04-2001
			NO	991976 A		02-07-1999
